

**In The Drawings:**

The attached full set of replacement formal sheets, include new FIG. 5. Support for new FIG. 5 may be found throughout the as-filed specification, for example, in at least paragraphs [0003], [0005], [0008], [0009], [0014], [0015], [0035], and [0047]. No new matter has been entered.

### REMARKS

The Office Action mailed May 12, 2006, has been received and reviewed. Claims 45 through 76 are currently pending in the application, of which claims 45 through 61 are currently under examination. Claims 62 through 76 are withdrawn from consideration as being drawn to a non-elected invention. Claims 45 through 61 stand rejected. Applicants have amended pending claims 45, 62, and 67 through 70 and withdrawn claims 62 and 67 through 70, and respectfully request reconsideration of the application as amended herein. No new matter has been added.

Support for the amendment to claim 45 is found in at least paragraph [0023]. Support for the amendment to withdrawn claim 62 is found in at least paragraph [0023]. Withdrawn claims 67 through 70 have been amended to improve antecedent basis.

Support for the amendments to the specification may be found throughout the as-filed specification, for example, in at least paragraphs [0008], [0009], [0014], [0015], [0035], and [0047].

New FIG. 5 has been added. Support for this figure is found in the as-filed specification in at least paragraphs [0003], [0005], [0008], [0009], [0014], [0015], [0035], and [0047].

### **Claim Interpretation**

The Examiner asserts that the ““shear ply” is defined in the claims as being ‘a rubber component cured from a precursor composition.’” *Office Action mailed May 12, 2006, page 2.* However, Applicants respectfully submit that the phrase “shear ply” has a broader meaning because claim 45 recites the open-ended, transitional phrase “comprising.” Use of this transitional phrase means that the shear ply may include additional, unrecited elements. *M.P.E.P. § 2111.03.* For instance, claim 60, which depends on claim 45, recites that the shear ply of claim 45 comprises “a laminate of the rubber component and a fibrous material.” Claim 61 recites that the fibrous material of claim 60 comprises “a graphite fiber/epoxy composite.” As such, the shear ply has a broader meaning than that asserted by the Examiner. In addition, claim 45 recites that the shear ply is “interposed between a rocket motor case and a skirt.” As such, it is improper for the Examiner to limit the phrase “shear ply” to being “a rubber component cured from a precursor composition.”

The Examiner states that patentability can not be ascribed to any arrangement of the shear ply in a rocket motor because “there are insufficient details and disclosure to show any such construction.” *Office Action mailed May 12, 2006, page 2*. This statement appears to suggest that the Examiner is not giving weight to the limitation of the “shear ply interposed between a rocket motor case and a skirt.” However, claim 45 is directed to a rocket motor assembly that comprises the above-mentioned shear ply, and not merely to a composition. Therefore, the Examiner must give weight and meaning to the limitation of “a shear ply interposed between a rocket motor case and a skirt.”

Applicants also respectfully disagree with the Examiner’s position that there are “there are insufficient details and disclosure” for the rocket motor assembly. The as-filed specification provides sufficient details of the rocket motor assembly at at least paragraphs [0003], [0005], [0008], [0009], [0014], [0015], [0035], and [0047].

The Examiner also states that “identically taught compositions that exhibit the desired properties of ‘sufficient flexion, strength, and high temperature properties,’ . . . will be deemed to be usable.” *Office Action mailed May 12, 2006, page 2*. Applicants are unclear of the Examiner’s position in this regard because while the as-filed specification discloses these properties, none of the properties is recited in the claims. As such, it is improper for the Examiner to interpret the claims to include these properties.

### **35 U.S.C. § 112 Claim Rejections**

Claims 45 through 61 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. Applicants respectfully traverse this rejection, as hereinafter set forth.

The Examiner asserts that there is “[n]o guidance as to what the ‘rocket motor assembly’ may comprise, or even how it is made and that a person of ordinary skill in the art “would be required to proceed under the undue burden of experimentation to determine what is being claimed.” *Office Action mailed May 12, 2006, page 3*. However, the as-filed specification discloses that the rocket motor assembly includes a shear ply, a rocket motor case, and a skirt and provides details on how these components are configured in relation to one another. *See, at least*

paragraphs [0003], [0005], [0008], [0009], [0014], [0015], [0035], and [0047] of the as-filed specification. Applicants are not required to disclose every component of a rocket motor assembly or how it is made because a “patent need not teach, and preferably omits, what is well known in the art.” *M.P.E.P. § 2164.01*. Since the as-filed specification discloses sufficient details of the rocket motor assembly to enable a person of ordinary skill in the art to make and use the claimed invention, withdrawal of the 35 U.S.C. § 112, first paragraph, rejection is respectfully requested.

Claims 58 and 59 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully traverse this rejection because the hydrogenation saturation ranges recited in these claims are supported by as-filed claims 14, 15, 36, and 37 and at least paragraph [0038] of the as-filed specification. Thus, withdrawal of the 35 U.S.C. § 112, first paragraph, rejection is respectfully requested.

Claims 45 through 61 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse the rejection, as hereinafter set forth. It is asserted that the recitation of a “rocket motor assembly” is not clear as to its proper metes and bounds. *Office Action mailed May 12, 2006, page 4*. It is further asserted that the recitation of “a shear ply interposed between rocket motor case and a skirt” is indefinite. *Id.* However, as explained above, the as-filed specification discloses that the rocket motor assembly includes a shear ply, a rocket motor case, and a skirt and the configuration of these components in relation to one another. In addition, Applicants are not required to disclose every component of a rocket motor assembly or how it is made because a “patent need not teach, and preferably omits, what is well known in the art.” *M.P.E.P. § 2164.01*. The as-filed specification discloses sufficient detail of the rocket motor assembly at least paragraphs [0003], [0005], [0008], [0009], [0014], [0015], [0035], and [0047] that a person of ordinary skill in the art would be apprised of the metes and bounds of claim 45. Therefore, withdrawal of the 35 U.S.C. § 112, second paragraph, rejection is respectfully requested.

**Double Patenting Rejection Based on U.S. Patent 7,012,107**

Claims 45 through 56 and 58 through 61 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 27 of U.S. Patent 7,012,107 (hereinafter “the ‘107 Patent”). Applicants respectfully traverse the rejection, as hereinafter set forth. Claims 1 through 27 of the ‘107 Patent do not teach or suggest all of the limitations of claim 45, or of claims 46 through 56 and 58 through 61 which depend therefrom, because the claims of the ‘107 Patent do not teach or suggest the limitation of “a second hydrogenated nitrile conjugated-diene copolymer derived from a second composition comprising a second ethylenically unsaturated nitrile and a second conjugated diene, wherein the second hydrogenated nitrile conjugated-diene copolymer is not modified with a metal salt unsaturated carboxylic acid ester.” Since the claims of the ‘107 Patent do not teach or suggest this limitation, withdrawal of the double patenting rejection is respectfully requested.

**35 U.S.C. § 103(a) Obviousness Rejections**

Obviousness Rejection Based on U.S. Patent 5,860,883 to Jonen et al., U.S. Patent 6,132,328 to Kinoshita et al., U.S. Patent 6,240,993 to Onaka et al., U.S. Patent 6,352,488 to Morris et al., U.S. Patent 6,443,866 to Billups or U.S. Patent 6,739,854 to Nagata et al.

Claims 45 through 61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonen et al. (U.S. Patent 5,860,883), Kinoshita et al. (U.S. Patent 6,132,328), Onaka et al. (U.S. Patent 6,240,993), Morris et al. (U.S. Patent 6,352,488), Billups (U.S. Patent 6,443,866), or Nagata et al. (U.S. Patent 6,739,854) (collectively hereinafter “the cited references”). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for an obviousness rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner bears the heavy burden of establishing obviousness.

The obviousness rejection of claims 45 through 61 is improper because the cited references do not teach or suggest all of the claim limitations and do not provide a motivation to combine to produce the claimed invention. None of the cited references teaches or suggests the limitation of "a shear ply interposed between a rocket motor case and a skirt," wherein the shear ply comprises a rubber component cured from a precursor composition comprising the ingredients recited in claim 45. As acknowledged by the Examiner, the cited references teach compositions for use in power transmission belts but do not teach that these compositions are used in rocket motor assemblies. *Office Action mailed May 12, 2006, pages 5-6*. As such, the cited references do not teach or suggest the above-mentioned limitation of claim 45.

The Examiner states that the cited references "show the blend of resins and the various aspects of these compositions as including those parameters as recited and herein claims. *Office Action mailed May 12, 2006, page 6*. However, Applicants note that none of the pending claims recite properties of the precursor composition.

The cited references also do not provide a motivation to combine to produce the claimed invention. To provide a motivation or suggestion to combine, the prior art or the knowledge of a person of ordinary skill in the art must "suggest the desirability of the combination" or provide "an objective reason to combine the teachings of the references." *M.P.E.P. § 2143.01*. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *Id.* (emphasis in

original).

The Examiner acknowledges that the cited references do not teach or suggest the above-mentioned limitation but states that it would have been obvious to a person of ordinary skill in the art to produce the claimed invention because the cited references are “drawn to compositions suitable for use as the shear ply of a motor assembly, as disclosed and claimed herein.” *Office Action mailed May 12, 2006, page 6*. However, this is a conclusory statement by the Examiner and is not supported by any evidence of record. Specifically, nothing in the cited references, when combined, suggests the desirability of, or provides an objective reason for, using such compositions in a rocket motor assembly.

Since the cited references do not teach or suggest all of the claim limitations and do not provide a motivation to combine, the obviousness rejection of claim 45 is improper and should be withdrawn. Claims 46 through 61 depend from claim 45 and are allowable, *inter alia*, as depending from an allowable base claim.

### **Rejoinder**

Upon allowance of claims 45 through 61 (product claims), rejoinder and allowance of claims 62 through 76 (method claims), are respectfully requested as allowed by M.P.E.P. § 821.04(b).

## CONCLUSION

Claims 45 through 76 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain that might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



Devin R. Jensen  
Registration No. 44,805  
Attorney for Applicants  
TRASKBRITT  
P.O. Box 2550  
Salt Lake City, Utah 84110-2550  
Telephone: 801-532-1922

Date: August 11, 2006  
JAW/KAH/KAE/dlm:slm

Document in ProLaw